

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A method of sending first and second data from a first computing device to a second computing device remote from the first computing device, the first computing device and second computing device being communicatively connected by a network, the method comprising:

at said first computing device, creating a first packet which includes the first data and a first flag which indicates that said first packet is to be sent reliably;

at said first computing device, creating a second packet which includes the second data and a second flag which indicates that said second packet is to be sent non-reliably;

sending said first packet from the first computing device to the second computing device using the network;

determining that a first number of packets that have been sent from the first computing device to the second computing device and for which acknowledgement has not been received by the first computing device does not exceed a second number; and

sending said second packet from the first computing device to the second computing device using the network.

2. (Original) The method of claim 1, wherein said first packet comprises (a) a first header which includes said first flag, and (b) a body which includes the first data, and wherein said second packet comprises (a) a second header which includes said second flag, and (b) a body which includes the second data.

3. (Previously Presented) The method of claim 1, further comprising:

initializing a sequence number counter; and

incrementing said sequence number counter upon creation of a packet; wherein said creation of said first packet comprises including a current value of said sequence number counter in said first packet and wherein said creation of said second packet comprises including said current value of said sequence number counter in said second packet.

4. (Previously Presented) The method of claim 1, further comprising:
receiving, at the first computing device, an acknowledgment that said first packet and said second packet have each been received by the second computing device.

5. (Previously Presented) The method of claim 1, further comprising:
at the first computing device, receiving receipt-indication data which indicates that said first packet was not received;
determining that said first packet was sent reliably; and
re-sending said first packet from the first computing device to the second computing device.

6. (Previously Presented) The method of claim 5, wherein said first packet includes a first sequence number, wherein said receiving receipt-indication data which indicates that said first packet was not received includes:

receiving a second sequence number and a mask, said mask having a plurality of bits, each of said bits having an offset from a reference position in said mask, a specific bit from among said bits having a value of one, said specific bit from among said bits having a first offset from said reference position which corresponds to a second offset of said first sequence number from said second sequence number.

7. (Previously Presented) The method of claim 1, further comprising:
at the first computing device, receiving receipt-indication data which indicates that said second packet was not received;
determining that said second packet was sent non-reliably; and
sending, from the first computing device to the second computing device, a message which indicates that said second packet will not be re-sent.

8. (Previously Presented) The method of claim 7, wherein said second packet includes a first sequence number, wherein said receiving receipt-indication data which indicates that said second packet was not received includes:

receiving a second sequence number and a mask, said mask having a plurality of bits, each of said bits having an offset from a reference position in said mask, a specific bit from among said bits having a value of one, said specific bit from among said bits having a first offset from said reference position which corresponds to a second offset of said first sequence number from said second sequence number.

9. (Currently Amended) A computer-readable storage medium having computer-executable instructions to perform a method of sending first and second data from a first computing device to a second computing device remote from the first computing device, the first computing device and second computing device being communicatively connected by a network, the method comprising:

at said first computing device, creating a first packet which includes the first data and a first flag which indicates that said first packet is to be sent reliably;

at said first computing device, creating a second packet which includes the second data and a second flag which indicates that said second packet is to be sent non-reliably;

sending said first packet from the first computing device to the second computing device using the network;

determining that a first number of packets that have been sent from the first computing device to the second computing and for which acknowledgement has not been received by the first computing device does not exceed a second number; and

sending said second packet from the first computing device to the second computing device using the network.

10-16 (Cancelled).

17. (Previously Presented) A method of participating in communications with a first computing device, the method comprising:

at a second computing device remote from the first computing device, receiving a plurality of first packets, each of said packets including a sequence number;

at said second computing device, determining, based on said sequence numbers included in said plurality of first packets, that a second packet sent by the first computing device has not been received by the second computing device;

at said second computing device, sending to the first computing device an indication that said second packet has not been received, said indication comprising:

a reference number which is higher than or equal to a sequence number of said second packet; and

a mask having a plurality of bits which indicates, relative to said reference number, a sequence number of said second packet.

18. (Previously Presented) The method of claim 17, wherein each of said bits is located at an n -th offset into said mask, a lowest-order bit in the mask having a zero-th offset, and wherein a bit in said mask at an m -th offset is equal to one, m being equal to the sequence number of said second packet minus said reference number minus one.

19. (Original) The method of claim 17, wherein said reference number comprises an eight-bit number.

20. (Original) The method of claim 17, wherein said mask comprises a 32-bit data element.

21. (Original) The method of claim 17, wherein said indication further comprises a second mask having a plurality of bits which indicates, relative to said reference number, packets having sequence numbers more than a first number greater than said reference number, and wherein the sequence number of said second packet is greater than said first number.

22. (Currently Amended) A computer-readable storage medium having computer-executable instructions to perform a method of participating in communications with a first computing device, the method comprising:

at a second computing device remote from the first computing device, receiving a plurality of first packets, each of said packets including a sequence number;

at said second computing device, determining, based on respective sequence numbers of said sequence numbers included in said plurality of first packets, that a second packet sent by the first computing device has not been received by the second computing device;

at said second computing device, sending to the first computing device an indication that said second packet has not been received, said indication comprising:

a reference number which is higher than or equal to a sequence number of said second packet; and

a mask having a plurality of bits which indicates, relative to said reference number, a sequence number of said second packet.

23. (Currently amended) A method of communicating with a computing device comprising:

sending to the computing device a first packet which includes: (a) first data, and (b) an indication that said first packet is to be sent reliably;

sending to the computing device a second packet which includes: (a) second data, and (b) an indication that said second packet is to be sent non-reliably;

receiving from the computing device an indication that said first packet and said second packet have not been received by the computing device;

re-sending said first packet to the computing device; and

sending to the computing device an indication that said second packet will not be re-sent.

24. (Original) The method of claim 23, wherein said first packet comprises a header which includes a command byte having a plurality of bits, a first of said plurality of bits comprising the indication that said first packet is to be sent reliably.

25. (Previously Presented) The method of claim 23, wherein said second packet has a sequence number associated therewith, and wherein said sending an indication that said second packet will not be re-sent comprises:

creating a third packet which includes:

a reference number;

a control byte having a plurality of bits, one or more of said plurality of bits indicating the presence in said third packet of one or more masks;

a mask having a plurality of bits, each of said bits corresponding to a packet sequence number relative to said reference number, the bit corresponding to the sequence number of said second packet indicating that said second packet will not be re-sent.

26. (Currently Amended) A computer-readable storage medium having computer-executable instructions to perform a method of communicating with a computing device, the method comprising:

sending to the computing device a first packet which includes: (a) first data, and (b) an indication that said first packet is to be sent reliably;

sending to the computing device a second packet which includes: (a) second data, and (b) an indication that said second packet is to be sent non-reliably;

receiving from the computing device an indication that said first packet and said second packet have not been received by the computing device;

re-sending said first packet to the computing device; and

sending to the computing device an indication that said second packet will not be re-sent.

27. (Previously Presented) A device for communicating data in a computer network which connects the device to one or more remote devices, the device comprising:

a processor which executes computer-executable instructions;

a memory communicatively coupled to said processor, said memory storing:

first logic executable on said processor which receives (a) first data, (b) an indication of whether said first data is to be transmitted reliably or non-reliably, and (c) an identifier of a first one of the remote devices to which said first data is to be sent;

a sequence counter;

second logic executable on said processor which creates a package including (a) said first data, (b) second data indicative of said indication, and (c) a current value of said sequence counter, and which increments said sequence counter upon creation of said package;

a network interface which communicates said package to said first one of the remote devices over the computer network and which receives from said first one of the remote devices a selective acknowledgment indicative of whether said first package has been received by said first one of the remote devices, said network interface being communicatively coupled to said memory and to the computer network;

said memory further storing:

third logic executable on said processor which creates a response that includes either (a) said first data, or (b) a message that said first data will not be re-sent, according to whether indication indicates reliable or non-reliable transmission of said first data.

28. (Previously Presented) The device of claim 27, wherein said message that said first data will not be re-sent comprises:

a reference number;

a mask having a plurality of bits, each of said bits corresponding to a sequence counter value relative to said reference number, wherein a one of said bits that corresponds to the sequence counter value of said package has a bit value which indicates that said first data will not be re-sent.

29. (Previously Presented) The device of claim 27, wherein said selective acknowledgment comprises:

a reference number;

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a mask having a plurality of bits, each of said bits corresponding to a sequence counter value relative to said reference number, wherein a one of said bits that corresponds to the sequence counter value of said package has a bit value which indicates whether said package has been received by said first one of the remote devices.